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EXAMINER	
LANE, JEFFREY D	

ART UNIT	PAPER NUMBER
2828	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/776,404	GOVORKOV ET AL.	
	Examiner	Art Unit	
	Jeffrey D. Lane	2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,11-15,17-20,22-30 and 35-39* is/are rejected.

7)☒ Claim(s) *10, 16, 21, and 31-34* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 February 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/2/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore: MOPA system using the same circuit, and the MOPA system using separate circuits for the MO and the PA, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the

description: Figure 1 part "124" is labeled but there is no reference to it in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

1. The disclosure is objected to because of the following informalities: On page 5 line 14 it reads "increased lever" which doesn't make sense, for examination purposes it will be interpreted as "increased level".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 17 recites the limitation "the feedback sensor" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim. There is no reference to a

"feedback sensor" in claim 14. For examination purposes it will be interpreted as "a feedback sensor".

4. Claim 20 recites the limitation "the transparent media" in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no reference to a "transparent media" in claim 14. For examination purposes it will be interpreted as "a transparent media".

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Farcy (US 4,122,390).

As for claim 1 Farcy discloses in figure 1, An excimer or molecular fluorine laser system, comprising: a master oscillator 4 including therein a first discharge chamber filled with a first gas mixture (See Column 2 lines 41-46), the first discharge chamber containing a first plurality of electrodes connected to a first discharge circuit for

energizing the first gas mixture and generating an oscillator beam; a power amplifier including therein a second discharge chamber 13 filled with a second gas mixture (See Column 2 lines 13-15), the second discharge chamber containing a second plurality of electrodes connected to a second discharge circuit for energizing the second gas mixture and amplifying the oscillator beam received from the master oscillator 4 for output as an output beam; and an acousto-optical modulator 7 positioned along a beam path between the master oscillator 4 and the power amplifier 14, the acousto-optical modulator 7 operable to selectively control an amount of the oscillator beam to be received by the power amplifier 13.

As for claim 13 Farcy discloses, the power amplifier is further operable to compensate for any energy loss in the oscillator beam resulting from the oscillator beam passing through the acousto-optical modulator. Farcy's power amplifier can make up for a loss in energy to the oscillator beam at all the wavelengths.

3. Claims 35, 37, and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Kitatochi et al. (US 6,741,627).

As for claim 35, Kitatochi discloses in figure 1, A method of generating an output beam in an excimer or molecular fluorine laser system, comprising: generating an oscillator beam in a master oscillator 1; transmitting the oscillator beam to a power amplifier 1'; in a first operational state amplifying the oscillator beam received by the power amplifier; and in a second operational state providing no amplification to the oscillator beam received by the power amplifier (See Column 7 lines 46-54).

As for claim 35, an alternate interpretation of Kitatochi discloses, turning the power on and off would read on the limits of the claim as follows: A method of generating an output beam in an excimer or molecular fluorine laser system, comprising: generating an oscillator beam in a master oscillator 1; transmitting the oscillator beam to a power amplifier 1'; in a first operational state (i.e. on) amplifying the oscillator beam received by the power amplifier; and in a second operational state (i.e. off) providing no amplification to the oscillator beam received by the power amplifier.

As for claim 37, Kitatochi discloses, controlling a direction of the oscillator beam 15 before the oscillator beam passes through the power amplifier 1'. The beamsplitters controls the direction of the beam by making part of the beam go to the monitor and allowing part of the beam to pass through the power amplifier.

As for claim 39 Kitatochi discloses in figure 1, A method of generating an output beam in an excimer or molecular fluorine laser system, comprising: generating an oscillator beam in a master oscillator; in a first operational state, passing the oscillator beam through a power amplifier, such that the oscillator beam is amplified for output as the output beam; and in a second operational state, preventing the oscillator beam from passing through the power amplifier. (See Column 7 lines 46- 54).

As for claim 39, an alternate interpretation of Kitatochi discloses, turning the power on and off would read on the limits of the claim as follows: a method of generating an output beam in an excimer or molecular fluorine laser system, comprising: generating an oscillator beam in a master oscillator 1; in a first operational state (ie on), passing the oscillator beam through a power amplifier 1', such that the

oscillator beam is amplified for output as the output beam; and in a second operational state (ie off), preventing the oscillator beam from passing through the power amplifier 1'.

4. Claims 35, 36, and 38 rejected under 35 U.S.C. 102(e) as being anticipated by Lublin et al. (US 6,704,339).

As for claim 35, Lublin discloses in fig 1., A method of generating an output beam in an excimer or molecular fluorine laser system, comprising: generating an oscillator beam in a master oscillator 8; transmitting the oscillator beam to a power amplifier 10; in a first operational state amplifying the oscillator beam received by the power amplifier (during a pulse see abstract); and in a second operational state providing no amplification to the oscillator beam received by the power amplifier (when it isn't during a pulse).

As for claim 36, Lublin further discloses, in the first operational state, applying a trigger ionization voltage to ionization electrodes of the power amplifier so that a discharge occurs in the power amplifier, which amplifies the oscillator beam. (See Lublin's claim 1)

As for claim 38, Lublin further discloses, measuring a pointing angle of the output beam (See Column12 line 40); and controlling a direction of the oscillator beam based on the pointing angle (See Column 12 lines 16-18).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 4, 6, 7 and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Farcy (US 4,122,390) in view of Mermelstein et al. (US 2002/0141039).

As for claims 4, 6, and 7,Farcy discloses all that pertains to claim 1 as shown above, however Farcy does not expressly disclose the AOM uses a piezo-electric transducer. Mermelstein discloses, "AOMs typically employ a piezoelectric transducer cemented to the crystal to convert RF electronic drive signals into acoustic waves. The resulting index of refraction gradient appears essentially as a Bragg diffraction grating to the incident optical beam, causing it to diffract. The angle of diffraction, as well as the amplitude and phase of the diffracted beams can be controlled precisely by varying the frequency, amplitude, and phase of the electronic drive signal." (Paragraph [0005]) Therefore it would have been obvious to one of ordinary skill in the art to use a piezo-electric transducer as part of the AOM to precisely control the amplitude and frequency of the diffracted beam.

As for claim 9, Farcy further discloses, the transparent media is quartz (See Column 2 lines 48-49).

8. Claims 1, 2, 13-15, 17, 24, and 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitatochi et al. (US 6,741,627) in view of Allison et al. (US 6,036,911).

As for claim 1 Kitatochi discloses in figure 1, An excimer or molecular fluorine laser system, comprising: a master oscillator including therein a first discharge 1 chamber filled with a first gas mixture (See column 3 lines 38-40), the first discharge chamber containing a first plurality of electrodes connected to a first discharge circuit for energizing the first gas mixture and generating an oscillator beam; a power amplifier 1' including therein a second discharge chamber filled with a second gas mixture (See column 3 lines 38-40), the second discharge chamber containing a second plurality of electrodes connected to a second discharge circuit for energizing the second gas mixture and amplifying the oscillator beam received from the master oscillator 1 for output as an output beam. However, Kitatochi does not expressly disclose using an Acousto Optical Modulator (AOM). Allison discloses, "Therefore, a pair of acousto optic modulators or the like can function as both shutters and fine adjust scanners." (Column 36 lines 44-45). Therefore it would have been obvious at the time of the invention to use a pair of optical modulators as shutters, because they are structural equivalents.

As for claim 14, As for claim 1 Kitatochi discloses in figure 1, An excimer or molecular fluorine laser system, comprising: a master oscillator 1 including therein a first

discharge chamber filled with a first gas mixture, the first discharge chamber containing a first plurality of electrodes connected to a first discharge circuit for energizing the first gas mixture and generating an oscillator beam; a power amplifier including therein a second discharge chamber filled with a second gas mixture, the second discharge chamber 1' containing a second plurality of electrodes connected to a second discharge circuit for energizing the second gas mixture and amplifying the oscillator beam received from the master oscillator 1 for output as an output beam; . However, Kitatochi does not expressly disclose using a pair of Acousto Optical Modulator (AOM). Allison discloses, "Therefore, a pair of acousto optic modulators or the like can function as both shutters and fine adjust scanners." (Column 36 lines 44-45). Therefore it would have been obvious at the time of the invention to use a pair of optical modulators as shutters, because they are structural equivalents.

As for claim 27, Kitatochi discloses in figure 1, A method of generating an output beam in an excimer or molecular fluorine laser system, comprising: generating an oscillator beam in a master oscillator 1; modulator transmitting the oscillator beam when the modulator is in a first state and deflecting the oscillator beam when the modulator is in a second state; and passing the oscillator beam received through a power amplifier, such that the oscillator beam is amplified for output as the output beam (See Kitatochi Column 7 lines 48-50). However, Kitatochi does not expressly disclose using an Acousto Optical Modulator (AOM). Allison discloses, "Therefore, a pair of acousto optic modulators or the like can function as both shutters and fine adjust scanners." (Column 36 lines

44-45). Therefore it would have been obvious at the time of the invention to use a pair of optical modulators as shutters, because they are structural equivalents.

As for claim 30, Kitatochi discloses in figure 1, A method of generating an output beam in an excimer or molecular fluorine laser system, comprising: generating an oscillator beam in a master oscillator 1; and passing the oscillator beam through a power amplifier 1', such that the oscillator beam is amplified for output as the output beam. However, Kitatochi does not expressly disclose using a pair of Acousto Optical Modulator (AOM). Allison discloses, "Therefore, a pair of acousto optic modulators or the like can function as both shutters and fine adjust scanners." (Column 36 lines 44-45). Therefore it would have been obvious at the time of the invention to use a pair of optical modulators as shutters, because they are structural equivalents.

As for claim 2, Kitatochi and Allison disclose, the acousto-optical modulator can selectively control the amount of the oscillator beam to be received by the power amplifier by deflecting at least one portion of the oscillator beam when the acousto-optical modulator is activated, such that said at least one portion is not amplified by the power amplifier (See Kitatochi Column 7 lines 48-50; or alternatively Allison Column 36 lines 37-43).

As for claims 13 and 24, Kitatochi discloses, in Figure 11(a), the power amplifier is further operable to compensate for any energy loss in the oscillator beam resulting from the oscillator beam passing through the acousto-optical modulator. Kitatochi's

power amplifier can make up for a loss in energy to the oscillator beam at all the wavelengths.

As for claim 15, Allison discloses that the planes used are the X and Y planes, which are substantially orthogonal. (See Column 31 lines 49-54).

As for claim 17, Kitatochi discloses in fig. 1, a directional control module 22 operable to receive a position (See Column 7 lines 51-65) signal from the feedback sensor and provide a control signal to a transducer for at least one of the first and second acousto-optical modulators in order to redirect the oscillator beam (See fig. 19). The Examiner notes that a position can be interpreted as a position on a frequency/wave length spectrum; therefore the limitations of the claim are met.

As for claim 26, Kitatochi discloses in fig. 1, the master oscillator further includes a line-narrowing optics module 2 for narrowing the oscillator beam in the first discharge chamber.

As for claim 28, Kitatochi discloses, controlling a direction of the oscillator beam 15 before the oscillator beam passes through the power amplifier 1'. The beamsplitters controls the direction of the beam by making part of the beam go to the monitor and allowing part of the beam to pass through the power amplifier. Also Allison discloses, "Therefore, a pair of acousto optic modulators or the like can function as both shutters and fine adjust scanners." (Column 36 lines 44-45).

As for claim 29, Kitatochi and Allison disclose, setting the acousto-optical modulator to a second state for a portion of the oscillator beam. (See Kitatochi Column 7 lines 48-50; or alternatively Allison Column 36 lines 37-43).

9. Claims 4-8, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitatochi and Allison as applied to claims 1 and 14 above, and further in view of Mermelstein et al. (US 2002/0141039).

As for claims 4, 6, 7, and 18, Kitatochi and Allison disclose all that pertains to claim 1 and 14, however they do not expressly disclose the AOM uses a piezo-electric transducer. Mermelstein discloses, "AOMs typically employ a piezoelectric transducer cemented to the crystal to convert RF electronic drive signals into acoustic waves. The resulting index of refraction gradient appears essentially as a Bragg diffraction grating to the incident optical beam, causing it to diffract. The angle of diffraction, as well as the amplitude and phase of the diffracted beams can be controlled precisely by varying the frequency, amplitude, and phase of the electronic drive signal." (Paragraph [0005]) Therefore it would have been obvious to one of ordinary skill in the art to use a piezo-electric transducer as part of the AOM to precisely control the amplitude and frequency of the diffracted beam.

As for claims 5 and 19, RF signals include the range 300 kHz- 300 MHz. 20 MHz to 200 MHz is a sub set and therefore the limitations of the claim are met.

As for claim 8, Kitatochi and Allison further explain, the piezo-electric transducer receives a second input whereby the acousto-optical cell transmits at most 20% of the oscillator beam to the power amplifier. When the acousto-optical modulator is being used as a shutter and the light is being trapped (Allison Column 36 lines 25-49) then that means that no light is transmitted and there for less than 20% makes it to the power amplifier, therefore the limitations of the claim are met.

10. Claims 9 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Kitatochi and Allison and Mermelstein as applied to claims 4 and 20 above, and further in view of Baer (US RE 34,192). Kitatochi and Allison disclose all that pertains to claim 14 and Kitatochi, Allison and Mermelstein disclose all that pertains to claim 4. However Kitatochi, Allison, nor Mermelstein expressly disclose the transparent material in the acousto-optic modulator. Baer discloses "The use of an acousto-optic modulator inside a laser cavity for Q-switching is described in Chang, "Acousto-optic Devices and Applications," IEEE Transactions on Sonics and Ultrasonics, Vol. SU-23, No. 1, January 1976 on page 17. However, as noted therein nearly all acousto-optic Q-switches are made of fused silica." (Column 1 lines 34-40) therefore it would have been obvious to one of ordinary skill in the art to use a fused silica modulator because they are the most available.

11. Claims 1, 3, 12, 13, 14, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao et al. (US 6,721,344) in view of Allison et al. (US 6,036,911).

As for claim 1, Nakao in figure 1, An excimer or molecular fluorine laser system, comprising: a master oscillator including therein a first discharge 12A chamber filled with a first gas mixture (See column 1 lines 47-50), the first discharge chamber containing a first plurality of electrodes connected to a first discharge circuit for energizing the first gas mixture and generating an oscillator beam; a power amplifier 12B including therein a second discharge chamber filled with a second gas mixture

(See column 1 lines 47-50), the second discharge chamber containing a second plurality of electrodes connected to a second discharge circuit for energizing the second gas mixture and amplifying the oscillator beam received from the master oscillator 12A for output as an output beam. However, Nakao does not expressly disclose using an Acousto Optical Modulator (AOM), Nakao only discloses a non descript shutter 52A. Allison discloses, "Therefore, a pair of acousto optic modulators or the like can function as both shutters and fine adjust scanners." (Column 36 lines 44-45). Therefore it would have been obvious at the time of the invention to use a pair of optical modulators as shutters, because they are structural equivalents.

As for claim 14, Nakao discloses, An excimer or molecular fluorine laser system, comprising: a master oscillator 12A including therein a first discharge chamber filled with a first gas mixture (See column 1 lines 47-50), the first discharge chamber containing a first plurality of electrodes connected to a first discharge circuit for energizing the first gas mixture and generating an oscillator beam; a power amplifier 12B including therein a second discharge chamber filled with a second gas mixture (See column 1 lines 47-50), the second discharge chamber containing a second plurality of electrodes connected to a second discharge circuit for energizing the second gas mixture and amplifying the oscillator beam received from the master oscillator for output as an output beam; However, Nakao does not expressly disclose using a pair of Acousto Optical Modulator (AOM). Allison discloses, "Therefore, a pair of acousto optic modulators or the like can function as both shutters and fine adjust scanners." (Column 36 lines

44-45). Therefore it would have been obvious at the time of the invention to use a pair of optical modulators as shutters, because they are structural equivalents.

As for claim 3, Nakao discloses, the acousto-optical modulator is activated during an initial recovery period (when the laser is first turned on) of the oscillator beam. (See Column 6 lines 15-19)

As for claims 12 and 23, Nakao discloses in figure 1, an aperture (45 and 36) positioned along the beam path between the acousto-optical modulator (at position 52A as described above) and power amplifier 12B, the aperture operable to block the deflected portion of the oscillator beam. Examiner notes that the definition of an aperture is an opening in an opaque disk or mask that passes a predetermined amount of light or other radiant energy.

12. Claims 11, 22, and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Nakao et al. (US 6,721,344) and Allison et al. (US 6,036,911) as applied to claims 1 and 14 above, and further in view of Hunt ("Suppression of self-focusing through low-pass spatial filtering and relay imaging". Applied Optics. Vol. 17, No 13. pg. 2053-2057, July 1, 1978).

As for claims 11, 22, and 25 Nakao and Allison disclose all that pertains to claim 1 and 14 as shown above. However neither Nakao nor Allison disclose using neither a spatial filter nor an optical decoupler. Hunt teaches, "The optical imaging property of an individual <spatial> filter may be used to provide an effective zero propagation path

through an amplifier stage, and, as a consequence, the growth of intensity fluctuations induced by self-focusing is minimized. " (V. Conclusions, pg 2057). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a spatial filterto provide an effective zero propagation path. Based on page 6 lines 28-20 of the present application, the Examiner understands that a spatial filter is an optical decoupler.

Allowable Subject Matter

13. Claims 10, 16, 21 and 31-34 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter:

As for claims 10 and 21, There is not found within the references cited, an acousto optical modulator and a pair of cylindrical lenses, all between a excimer master oscillator and a power amplifier with the accompanying limitations of the claims they depend on.

As for claims 16, 31-34, There is not found within the references cited, a device that measure the pointing angle of the output beam, and an acousto optical modulator between a excimer master oscillator and a power amplifier with the accompanying limitations of the claims they depend on.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey D. Lane whose telephone number is (571) 272-1676. The examiner can normally be reached on Monday thru Friday 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeffrey D Lane
Examiner
Art Unit 2828

JDL

MINSUN CH HARVEY
PRIMARY EXAMINER